

Title (en)
Aqueous binder based on polyester-polyuréthane

Title (de)
Wässrige Bindemittel auf Polyester-Polyurethan-Basis

Title (fr)
Liant aqueux à base de polyester-polyuréthane

Publication
EP 0729991 B1 20010502 (DE)

Application
EP 96102130 A 19960213

Priority
DE 19506736 A 19950227

Abstract (en)
[origin: EP0729991A1] A 20-60 wt.% aq. dispersion of a polyester-polyurethane (I) with a viscosity of 10-20000 mPa.s at 23 degrees C and pH of 5.5-10 is claimed. (I) has a Mw of 1500-100000, OH number of 20-300 mg KOH/g, acid number of 7-70 mg KOH/g, corresp. to 20-100% COOH gps. neutralised as carboxylate gps. and a urethane (-NH-CO-O-) content of 2.5-15 wt.%. (I) is a salt obtd. by (partial) neutralisation of a reaction prod. (II) with a base. (II) is prepd. from (a) 50-91 wt.% polyester component, comprising polyester-polyol(s) (III) with an OH no. of 25-350; (b) 7-45 wt.% polyisocyanate component (IV), comprising at least 50 wt.% 1-methyl-2,4- and/or 2,6-diisocyanatocyclohexane (IVA), rest organic polyisocyanates (IVB) of molecular wt. 140-1500; (c) 2-12 wt.% (potential) anionic component (V), comprising cpd(s). with NCO-reactive gp(s). and opt. (partly) neutralised salt-forming gps., opt. (d) 0.10 wt.% nonionic-hydrophilic component (VI), comprising a mono- or di-functional cpd. with hydrophilic polyether chain(s); and/or opt. (e) 0-30 wt.% other components (VII) with NCO-reactive H atoms and a molecular wt. of 62-2500. Also claimed is an aq. binder combination of an aq. (I) dispersion and a hardener.

IPC 1-7
C08G 18/75; **C08G 18/66**; **C08G 18/42**; **C08G 18/08**; **C09D 175/06**

IPC 8 full level
C08G 18/00 (2006.01); **C08G 18/08** (2006.01); **C08G 18/42** (2006.01); **C08G 18/66** (2006.01); **C08G 18/73** (2006.01); **C08G 18/75** (2006.01); **C09D 5/00** (2006.01); **C09D 175/06** (2006.01)

CPC (source: EP US)
C08G 18/0819 (2013.01 - EP US); **C08G 18/4288** (2013.01 - EP US); **C08G 18/6659** (2013.01 - EP US); **C08G 18/751** (2013.01 - EP US); **C09D 175/06** (2013.01 - EP US)

Cited by
WO2005010067A1; EP0792900B1

Designated contracting state (EPC)
AT BE CH DE ES FR GB LI NL SE

DOCDB simple family (publication)
US 5710209 A 19980120; AT E200907 T1 20010515; CA 2170209 A1 19960828; DE 19506736 A1 19960829; DE 59606836 D1 20010607; EP 0729991 A1 19960904; EP 0729991 B1 20010502; ES 2158159 T3 20010901; JP H08253546 A 19961001

DOCDB simple family (application)
US 60253996 A 19960220; AT 96102130 T 19960213; CA 2170209 A 19960223; DE 19506736 A 19950227; DE 59606836 T 19960213; EP 96102130 A 19960213; ES 96102130 T 19960213; JP 6161896 A 19960226